

Topics of Mathematics in the Entrance Examination for the Bachelor of Engineering Degree in Outline:

What a candidate should know in the minimum.

LEVEL: "general high school level mathematical competence".

The significance of Mathematics in contemporary society and culture require an understanding of making good use of and producing information in a mathematical form. An applicant should have an ability to identify mathematical patterns and to know how to operate with them. Modelling of a problem and problem solving is also a requirement in the examination.

- Elementary Mathematics
- Expressions, equations and pairs of equations, 1st order inequalities: including exponential, logarithmic, trigonometric and root equations
- Elementary functions and their graphs, including applications: absolute value, power, polynomial, rational functions etc.
- Analytic geometry and geometry, trigonometry: straight line, circle, parabola, triangle; concept of distance along a line, on a plane; length, area, volume of a geometric object; sine and cosine theorems
- Calculus with applications: concept of change, derivative, integral

There are various books available covering the above topics.

Find a collection "SOME EXAMPLES of PROBLEMS" attached to this outline!
In the Entrance Examination the tasks will not necessarily be like the ones in the examples!